

design process

The design process consisted of a series of focused workshops with the New Library Resource Team (NLRT) and the SRG design team to determine the vision and design direction for the New Tigard Library. During the kick-off workshop, the NLRT and design team were introduced; the project schedule and approach were outlined; and the needs, goals, and vision for the project were discussed. From this input, along with discussions with staff, library users, and the Tigard community about their expectations for the library, common themes emerged. These themes were explored, shared, and refined to become the basis for the project's vision statement.

Confirming the Program

The components of the vision statement became focal points for discussions with the library staff to determine current and future needs for the library. This collaborative process helped the design team refine and confirm space needs, adjacencies, functional requirements, and book and visitor flow. Building upon the input from the NLRT workshops and the meetings with library staff, SRG developed a refined architectural program that formed the basis for the schematic design. The program identifies the current space needs of the library as well as needs for its growth 17 years into the future. The architectural program, block diagram, and visitor flow diagram are shown in more detail in the program section of this schematic design report.



Developing the Design

Early in the design process, after the kick-off workshop, key City and library staff and SRG embarked on a day of "discovery tours" to see how other libraries were designed and how they functioned. Discussions with their library staff about what was successful and what was not in the programming, design and construction phases of their projects were extremely informative. The tours involved visits to two recently completed libraries nearby, the Beaverton City Library and the West Linn Library.

The discovery tours presented a unique opportunity for dialogue between all of the participants, helping to clarify the vision for the New Tigard Library. Following the tour, a second workshop was held to review with the NLRT what was observed, to share likes and dislikes, to identify critical elements, and to determine the elements that could be considered for the New Tigard Library.

As the program and plan were developing, the site and its constraints and opportunities were explored. The site is extraordinary and offers seasonal, southern-lit views toward Fanno Creek. Studies were done to look at the impact of the building and parking on the site in terms of access, views, daylighting, and environmental stewardship.

At the first community meeting, SRG presented site and building design options for exploration, feedback, and discussion. The preferred configuration was for a rectangular-shaped building to be closest to the edge of the flood plain, maximizing the views and the north light into the building.

As the schematic design of the site and building were developed further by the SRG design team, meetings with the library director continued to help refine the architectural program with the plan that was developing. Through a great effort by all involved, the architectural program and plan were aligned to create a scheme that was responsive to both the site issues and the program needs. At the third NLRT workshop, the design direction was approved for SRG to pursue.

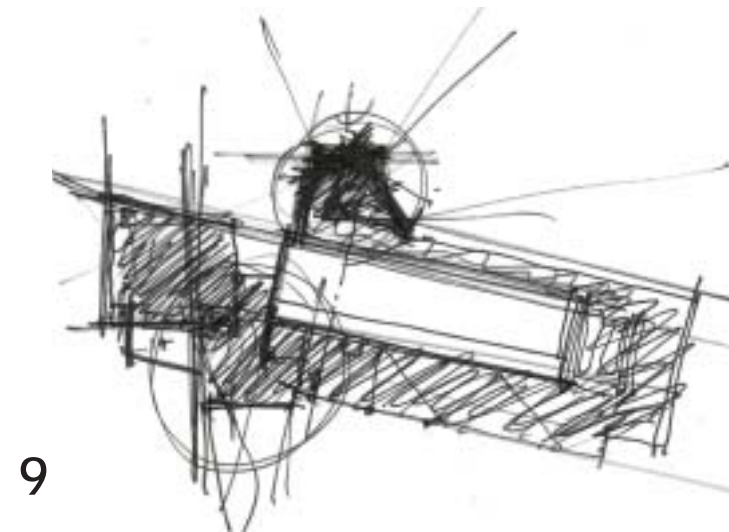
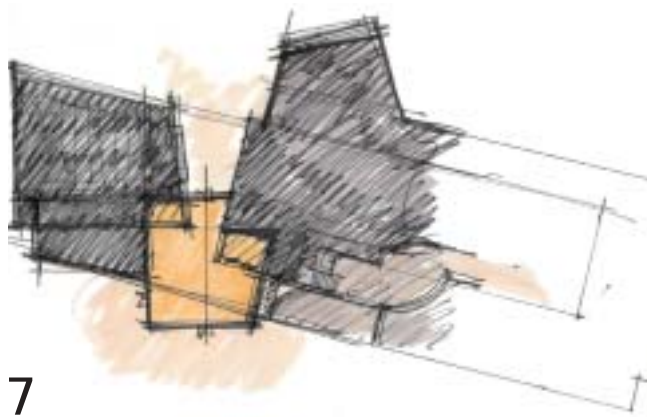
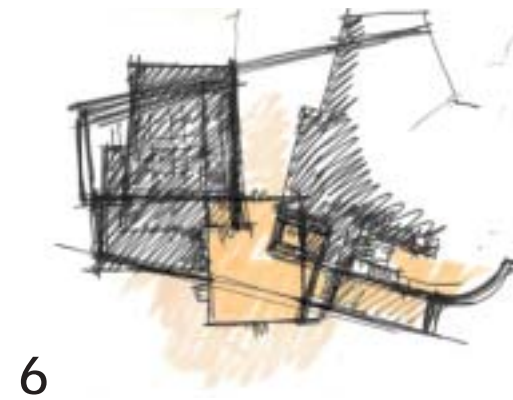
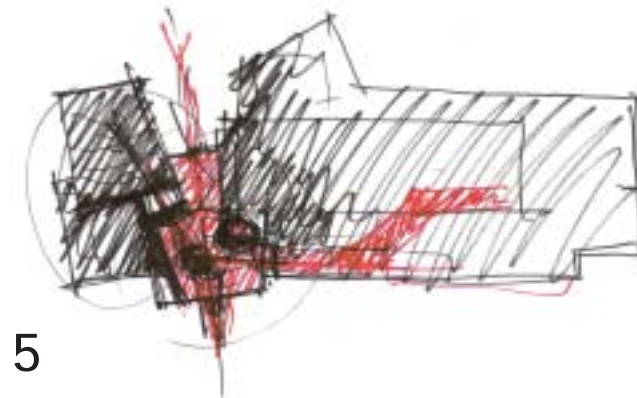
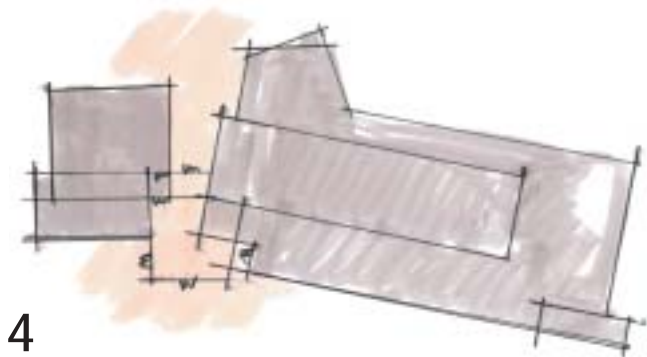
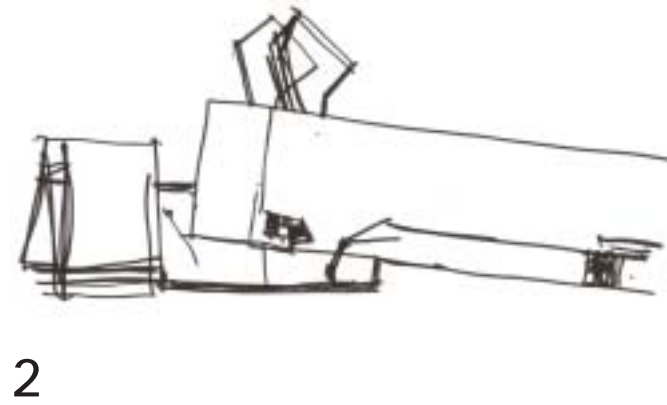
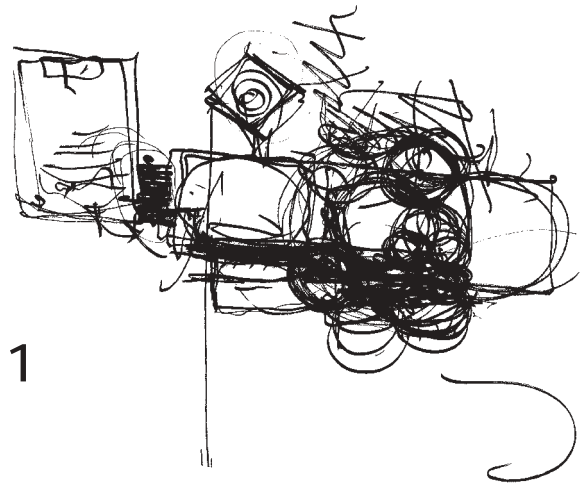
The NLRT discussed at length utilizing sustainable design practices for the site, the building, and its systems because it supports the project's vision and goals. The NLRT decided they would like the design team to pursue LEED (Leadership in Energy and Environmental Design) certification as an option if funds are available, and as a minimum, design the New Tigard Library to LEED standards.

SRG continued to refine the design, and at the final workshop presented a developed scheme that incorporated the feedback from the NLRT staff and the community. The building configuration was responsive to the site, intuitive for visitors, and efficient and functional for the library staff. The NLRT agreed that the scheme embodied the project vision statement. It is this schematic design represented in this report.



City staff, library staff, and SRG on a discovery tour

Progression of the design through plan studies



design concept

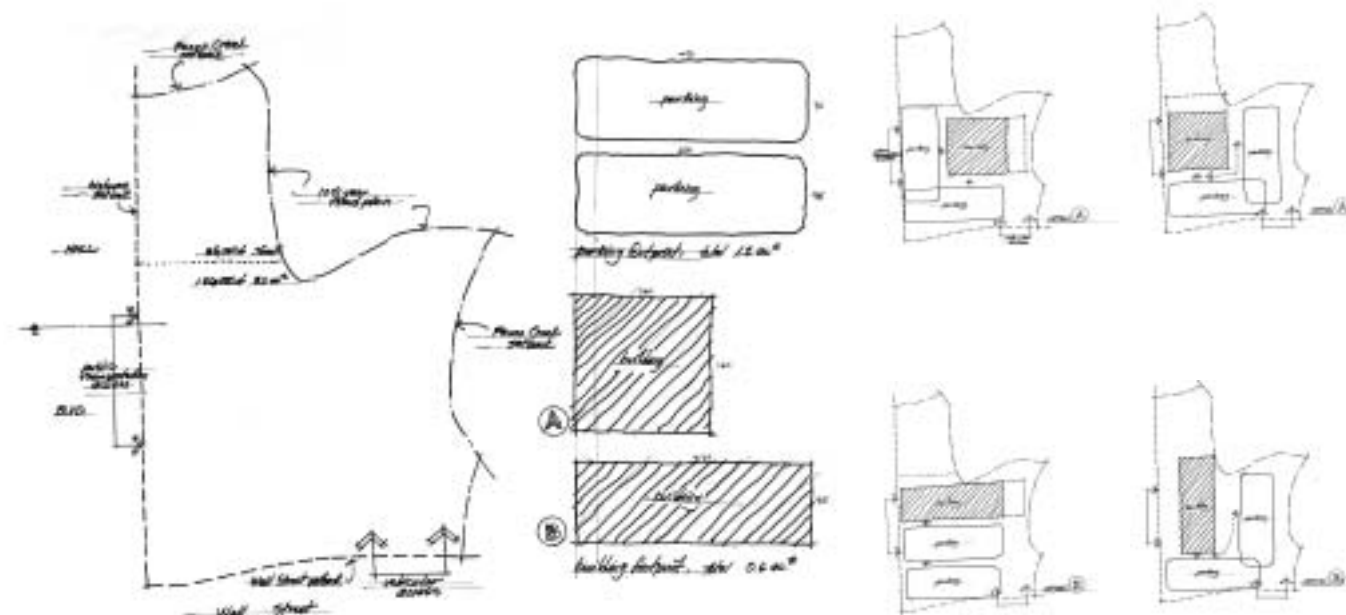
The design concepts for the New Tigard Library are based on three major goals contained within the project vision statement. They are:

- Create a center for learning, discovery, and community
- Integrate and exhibit the unique natural beauty of the site demonstrating environmental stewardship
- Express the values and spirit of the community

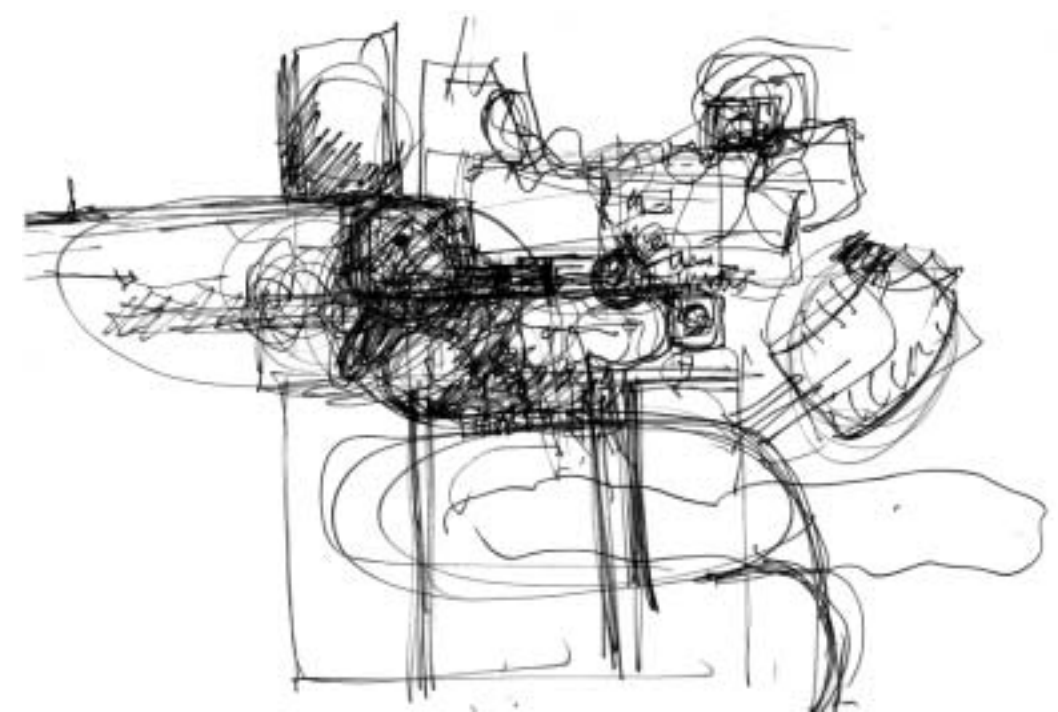
While the existing Tigard library has served the staff and community well since 1986, the collection has outgrown its capacity. The planned future addition of a second floor could not be executed partly due to the change of seismic codes. As the New Library Resource Team (NLRT), community groups and SRG collaborated and discussed values, certain priorities were outlined to shape the design of the library. The library should express the values and spirit of the community and foster community involvement and pride. The library should stand as a landmark and a beacon with an inviting presence. It should create long-term value for the city and community. Functionally, the library should be expandable so the next generation will not have to start from

scratch. As eloquently summarized in the vision statement, the library should provide a "functional, flexible, efficient, accessible, expandable, and inviting facility".

The site of the New Tigard Library was selected for its natural beauty and adjacency to other civic functions. The former horse pasture is a special place to Curtis Tigard who spent summer afternoons there swimming in a bend in Fanno Creek, which defines the northern and eastern edges of the site. The 14-acre site is bound by Hall Boulevard to the west and a proposed new street alignment to the south. This renders a unique opportunity to provide both a street presence as well as a strong relationship to nature. A significant portion of the site lies in the Fanno Creek 100-year flood plain and buffer zone, leaving only the southern portion buildable. Standing at the rim of the natural bowl, the most spectacular views are to the north and east toward the creek and natural wetland vegetation where the afternoon sun illuminates the trees. The intention in orientation is to maximize this spectacular view, allow soft northern light into the interiors, and provide good reading light.



Building/parking relationship studies



Massing and approach

The wetland designation in combination with parking requirements created an interesting challenge in positioning the building on the site, as the actual buildable portion of the site was quite limited. Preliminary sketches were created, illustrating possibilities for building/parking relationships, and it was discovered that the most successful solution was to have a long, narrow floor plan running east-west, with parking and vehicular access to the south. This accommodated maximized views and northern exposure, a strong street presence, and allowed for the preservation of some of the major trees on the site.

The long floor plan canted to the northeast allowed the façade to open the site and the northern light. The stacks are arranged north to south in conjunction with the structural grid so views can be enjoyed from anywhere within the library. The reading areas are distributed across the entire northeast wall in small, informal groupings. The special Grace T. Houghton room with a cozy fireplace penetrates the wall, creating a traditional reading room. The roof lifts with a clerestory on the second floor to illuminate the stacks. The

south and east walls are primarily masonry, with controlled openings to accommodate shelving needs for staff areas, reference, and circulation. Staff areas are consolidated to the east with separate circulation. Library expansion is planned to the east where staff areas will be consolidated, yielding the main body of the library for stacks.

The Community Meeting Room is separate from the main body of the library. Functionally, it allows for the room to be accessed for public use when the library is not in operation. In form, the void between buildings becomes a courtyard space accessed from the Community Meeting Room, entry lobby, or the children's area. This allows for programs and story time to spill outside to the courtyard, and controlled access to the Fanno Creek trail.

The glass-walled entrance lobby and the secured courtyard beyond occupy the space between the library and the Community Meeting Room. It contrasts from the masonry masses on either side and acts as a beacon, clearly marking the place of arrival. From the lobby, one looks into the court-

yard, which blends into the natural site beyond. A coffee bar will occupy a corner of the lobby, and art is planned for this area.

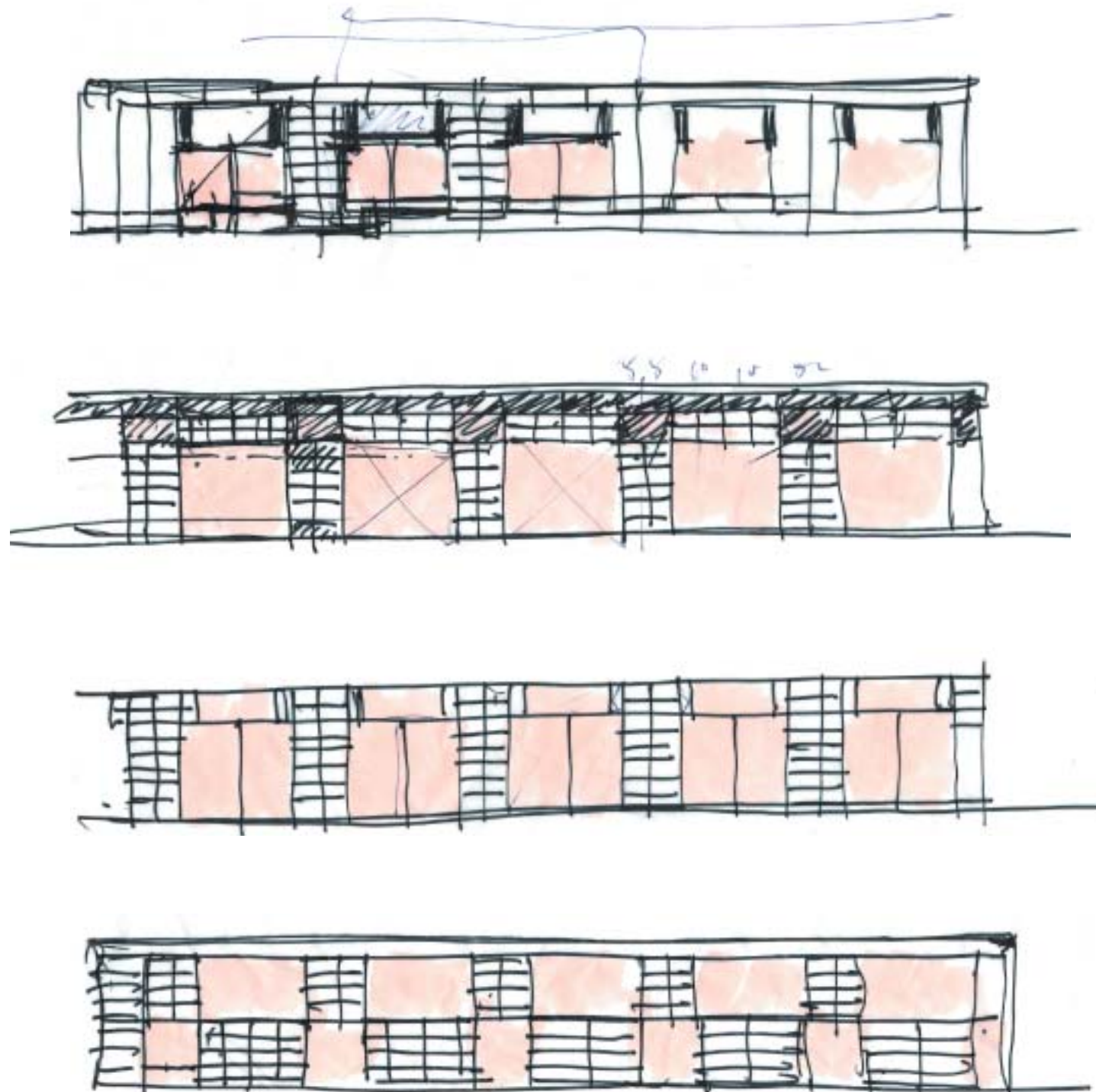
By keeping the building narrow and canting to the northeast, there is the opportunity to preserve some of the major trees on the site. Parking and grading are carefully planned to balance flow and functionality with environmental stewardship. Bio-swales along the north edge and south edge of the parking lot filter the storm water runoff before it flows into Fanno Creek.

The library space is designed to be intuitive for visitors and highly functional for staff. On both floors a wide visitor aisle connects the public stairway and elevator at the west end to the public restrooms at the east end.

Off this spine are the circulation, reference, welcome, and children's desks, and perpendicular rows of stacks that allow views north to the natural landscape. Reading areas occur along the north wall where there is wonderful light and views toward Fanno Creek.

Special features for the public include the Grace T. Houghton room, the Oregon History room, two group study rooms, a conference room, and a computer training room all on the second floor. Reference, fiction, non-fiction, young adults, and electronic resources are also on the second floor. A large children's area and a special program room are located on the first floor as well as new books, CDs, DVDs and videos.

The library is planned to accommodate 17 years of collection growth as well as the future inclusion of an automated book sorting system.



Studies of the south elevation

sustainable design

A key goal in the design of the New Tigard Library is to maximize the sustainable design concepts and elements of the project. This strongly supports the Project Vision Statement and is consistent with the values of the City and the entire community served by the library. Sustainable development concepts such as daylighting, selection of materials from renewable resources, natural ventilation, site water quality bioswales, and other design concepts have been integrated into the design of the library. Utilizing the Leadership in Energy and Environmental Design (LEED) certification rating as a guide, sustainable design and energy conservation concepts for the library have been identified, explored, and evaluated. For the preliminary LEED scoring of the New Tigard Library schematic design, refer to the Appendix. The library will be scored for LEED Certification throughout the design process with the option of obtaining actual certification.

As the design continues to be further developed, sustainable opportunities will continue to be explored and refined. Following is a summary of the sustainable design elements incorporated into the design or that are being explored for the New Tigard Library. See the sustainability LEED checklist in the Appendix of this report for a more detailed description of all the sustainability elements.

After completion of schematic design, the building will be "computer modeled" as part of the PGE Earth Advantage Program to identify payback savings and life-cycle cost of the elements.

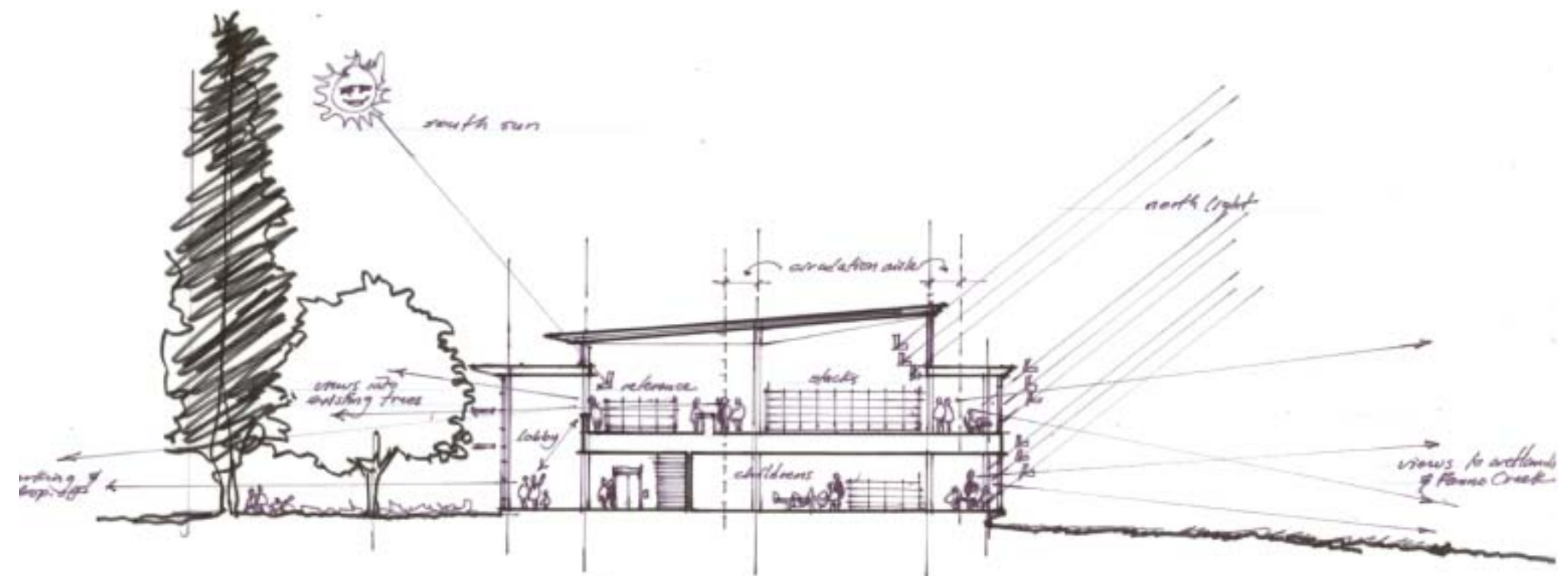
Site Design

- Minimize site development area in order to protect natural features.
- Use of impervious material throughout the site improvement area to minimize water runoff.
- Integration of water quality treatment swales into the site design to naturally treat water draining from the site's hard surfaces.
- Protection of existing trees and natural site features and integrating them into the design.
- Use of hard surface landscape materials made from recycled material.

Building Design

- Maximize the use of daylighting for lighting needs through the use of windows strategically placed for "cool" daylighting where daylight is admitted, without direct sunlight and to reduce the heat load.
- Provide south-facing windows with horizontal sun control devices to eliminate direct sunlight during hot summer months.
- Consideration of light shelves at south facing windows to allow sunlight into the building that is redirected off reflected surfaces, allowing light deep into the work areas for natural daylighting, reducing dependence upon electrical lighting.
- Use of lighting dimming controls to maximize the energy efficiency of daylighting.
- Consideration of Building Commissioning to maximize the design intent and energy efficiency of all building systems.

- Use of recycled steel in building materials.
- Use of sustainable certified wood forest products for all wood materials.
- Design for the option of operable windows to allow natural ventilation when conditions are favorable. The windows in the high roof area are mechanically operated to facilitate natural airflow. The natural ventilation is tied to the HVAC system so when windows are open, the mechanical system shuts off, thereby saving energy.
- The building floor structure of concrete provides thermal mass with the possibility of "night flushing", the building reduces heat build-up during daytime hours, thereby reducing cooling loads.
- Utilization of energy-efficient mechanical and electrical systems. See the mechanical and electrical System Descriptions in Section 5.0 of this report for further concepts in systems sustainability and energy efficiency.



Section study in relationship to natural settings, views, and light